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ABSTRACT

This report provides an end-of-year summative evaluation of the STEPS (Striving Toward Excellence in the Performance of Students) program, which was first implemented in elementary schools in 1983-84. The program, which is based on research on effective schools, focuses on school improvement efforts in six areas: (1) aligning instruction with district objectives; (2) using effective or innovative techniques of instruction; (3) fostering strong leadership by principals; (4) setting high achievement expectations for all students; (5) developing a positive school climate with an academic emphasis; and (6) involving parents in the educational process. The program is especially concerned with the improvement of reading and math instruction. It also aims to reduce the gap between minority and nonminority student scores. Presented are data for the 1990-91 school year concerning demographics, program implementation, observations, achievement, and teachers' and parents' perceptions of the program. Most teachers surveyed indicated that the STEPS program had positive effects on their school climate and on reading and math instruction. A large majority of parents said they were proud of the school their child attended; that they would recommend the school to other parents; and that, overall, they were satisfied with the program. A final section of the report draws conclusions about the status of program affairs and provides recommendations based on the 1991 data. Appended are seven references and related materials. (GLR)

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Summative Evaluation of the STEPS Program

1986-1991

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Evaluation Office

The School District of Kansas City, Missouri

August 1991

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Summative Evaluation of the STEPS Program

1986-1991

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August 1991

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Executive Summary

The STEPS program (Striving Toward Excellence in the Performance of Students) was organized during the 1983-84 school year, implemented in six elementary schools during 1984-85, and implemented in 12 additional elementary schools during 1985-86. Seventeen of the 18 original schools remained in the program through 1989-90 with one school dropped and replaced. This end-of-year summative report presents demographic, program implementation, observation, achievement, and perception data for the 1990-91 school year. Student achievement data are also reported for the years since implementation began (1986-91), however, enrollment data are only reported for 1990-91. A final section of the report draws conclusions about the program and makes recommendations for program improvement.

The enrollment across the 18 STEPS schools ranged from 83% minority at fourth grade to 87% minority at both first and second grade. When the data were broken down by magnet and traditional schools, the percent of minority students across grade levels ranged from 64-83% for the nine magnet schools and from 90-97% for the nine traditional schools.

Numerous inservice opportunities were offered on a voluntary attendance basis throughout the year for principals, instructional assistants, resource teachers, classroom teachers, and para-professionals. Classroom observations found no distinguishable pattern of differences in behaviors for teachers who were frequent attenders of the voluntary inservice programs and those who seldom or never elected to attend. In addition to the voluntary inservice opportunities, a pilot program designed to investigate the effectiveness of different methods of reading instruction in the content area operated in three STEPS schools. The 18 teachers involved received instruction, met for support, and provided feedback about their experiences throughout much of the school year. ITBS scores suggest that one of the methods may have had a positive impact on achievement. Results of this study will be used in planning for future interventions. Another pilot program, Reading Partners (ReaP), involving 13 teachers and at-risk students and their parents, was aimed at increasing both reading at home and parent involvement.

In 1990-91, STEPS kindergartners, first, and second graders met or exceeded the national norm on all subtests of the ITBS except second grade reading. At third grade the scores exceeded the national norm in language. Overall, STEPS students scored highest in language, with no grade level falling below the 44th percentile. Reading, language, and vocabulary scores in first grade and vocabulary scores in kindergarten and second grades exceeded the district

averages. However, scores remained below national norms and district averages in most subject areas at grade levels three, four, and five suggesting a continuing need for focus on reading and math instruction, especially on skills needed at those grade levels. Gain scores for STEPS and comparison schools did not differ to a statistically significant degree in any subject for the kindergarten and first grade cohorts, or for reading, language, and vocabulary in the second grade cohort. Comparison schools' gain scores were statistically significantly higher only in math on the second grade cohort, with average gains of two years four months for STEPS students and two years seven months for the comparison students. These data suggest that during the period between 1987-88 and 1990-91, instruction in STEPS schools has been as effective as that in the comparison schools when measured by ITBS performance. This may be an indicator of program success considering STEPS schools were chosen because of their low achievement scores. It is of importance to note that only the kindergarten cohort language score gains averaged three or more years of growth in the three year period between tests. This was true for both the STEPS and comparison schools.

One of the goals of the STEPS program has been to reduce the achievement gap between minority and non-minority student scores. Looking at minority/non-minority score patterns, both groups scored at the 59th percentile rank in second grade vocabulary. However, in all other areas, across grade levels, non-minority student scores were higher. Students who attended the same STEPS school for three years, from 1988-89 through 1990-91, and had progressed each year to the next grade level, were broken down into four cohort groups depending on whether they were in kindergarten, first, second, or third grade in 1988-89. Results show the gap between the groups is smaller in 1991 only in language for the kindergarten cohort (minority students are two months behind non-minority students in 1991 as opposed to six months in 1989). The third grade cohort showed the only other reductions in the gap between minority and non-minority scores, with four month differences in math and six month differences in vocabulary scores in 1989 reduced to three and five month gaps, respectively, in 1991. This analysis also reveals that minority students averaged two years of growth, between spring testings in 1989 and 1991, only in the kindergarten cohort in language (2 years three months). The non-minority group averaged two years growth in that period in math in the kindergarten cohort and in reading in the third grade cohort. That group also averaged a two year one month gain in the second grade cohort in language.

A large majority of teachers responding to a survey in spring 1991 agreed that the STEPS program has had a positive effect on the climate in their schools and on reading and math instruction. They believed that, overall, STEPS had a positive impact on their school and that their participation in the program should continue. Teachers who had been in their STEPS school at least three years were asked to respond to certain questions about changes in their schools. Approximately three-fourths of responding teachers said their knowledge about and use of effective instructional techniques was better or much better, expectations were higher, and the school climate was better or much better. Two-thirds stated that they believed the leadership of the principal was better or much better. However, only 33% of the responding teachers believed that parent involvement was better or much better, with 47% stating there was no change.

The majority of responses of the random sample of parents surveyed from each school by telephone were positive. A large majority of parents said they were proud of the school their child attends, they would recommend the school to other parents. and that, overall, they were satisfied.

A report on the status of program affairs, as they relate to recommendations made previously, and specific recommendations based on the data gathered this year are contained at the end of this report.

SUMMATIVE EVALUATION OF THE STEPS PROGRAM

1986-1991

Introduction

The STEPS program (Striving Toward Excellence in the Performance of Students) was organized during the 1983-84 school year, implemented in six elementary schools during 1984-85, and implemented in 12 additional elementary schools during 1985-86. Seventeen of the 18 original schools remained in the program through 1989-90 with one school dropped and replaced. Following the evaluation schedule outlined in the *Long Range Magnet School Plan* (Hale & Levine, 1986), programs will be evaluated in three year cycles. The first three years of a program will include two years of formative evaluations and end with a longitudinal summative evaluation. Following that, there will be summative evaluations every three years. During the interim years of four and five, seven and eight, etc., student achievement and enrollment trends only will be reported. The STEPS Program is in its sixth year; so this report is summative in nature.

Program Description

The 18 schools originally in the STEPS program were chosen because historically they had the lowest reading and math standardized achievement scores of the elementary schools in the district. Five of the schools have participated in STEPS for six full years , nine for five years, one school was added in 1989-90 to replace one that was dropped, and two more were added in 1990-91 to replace two that closed. The program is grounded in a recent body of educational research which has attempted to identify components that appear to be essential in developing and maintaining successful inner-city schools. The body of attempts to apply this research is commonly referred to as the Effective Schools movement (e.g., Edmonds, 1979).

Based on effective schools research, the STEPS program has concentrated school improvement efforts in six areas (Caruthers & Charles, 1986): 1) the alignment of instruction with district objectives; 2) the use of effective or innovative techniques of instruction; 3) fostering strong leadership by principals; 4) setting high achievement expectations for all students; 5) developing a positive school climate in which there is an academic emphasis; and 6) involvement of parents in the educational process. These program components are reiterated in the

STEPS Program 1990-91 Implementation Plan (Charles, 1990). Since 1985-86, the STEPS program has been especially concerned with improving reading instruction with an increasing concentration on math instruction. The STEPS program is coordinated by the district's Special Projects Office with consultation from a steering committee composed of personnel from the district and the University of Missouri-Kansas City.

Evaluation Design

Achievement data were taken from the district's annual spring administrations of the Iowa Tests Basic Skills (ITBS). Enrollment data are based on a report prepared by the district's Research Office (1990). In order to look at the growth rate and achievement level of the STEPS schools in relation to similar schools not participating in the program, data on a group of comparison schools are presented. The populations of the comparison schools, as well as the STEPS schools, have changed radically from year to year. In addition to having historically high student turnover rates, population changes have been the result of half of the STEPS and comparison schools becoming magnet schools in the last four years. The comparison schools were selected from the magnet and traditional schools having the highest minority enrollment. Gifted and talented students were not included in the comparison analyses as they were concentrated in certain of the comparison schools and would bias the achievement results. In an attempt to more accurately represent the effects of the STEPS program over time, some of the analyses in the evaluation were done on students who have remained in the same STEPS or comparison school for three years or four years. Analyses were also done comparing ITBS scores for STEPS classrooms that participated in a reading instruction pilot program with comparison students selected from non-participating STEPS schools.

Results and Discussion

Enrollment demographics

Table 1 summarizes 1990-91 enrollment data by grade level and minority/nonminority status. These data were taken from the annual student membership report prepared by the district's Research Office (1990). When the data were broken down by magnet and traditional schools, the percent of minority students across grade levels ranged from 64-83% for the nine magnet schools and from 90-97% for the nine traditional schools.

Table 1
STEPS Enrollment for 1990-91 by Grade, School, and Minority/Non-Minority Status

	K		1		2		3		4		5	
	NM	M	NM	M	NM	M	NM	M	NM	M	NM	M
Askew*	11	18	37	78	41	57	24	39	27	49	37	58
Attucks	17	27	12	29	8	37	10	53	12	37	13	36
Bancroft*	5	44	3	85	3	62	2	61	5	54	2	50
Blenheim*	1	108	1	94	0	69	1	74	0	60	0	73
Chick*	2	83	1	63	1	52	1	47	6	38	2	45
Franklin	9	13	9	65	5	68	9	65	8	79	8	76
Garfield	21	47	31	55	32	52	29	50	31	49	26	48
Graceland*	0	44	0	89	1	66	1	41	2	42	0	47
Greenwood*	4	135	8	116	14	92	14	84	--	--	--	--
Holmes*	0	120	1	81	0	65	0	55	2	53	1	47
Kumpf*	0	150	6	64	0	50	3	30	0	30	0	15
Ladd*	0	51	1	78	1	77	0	61	4	67	3	81
Meservey	13	25	15	44	11	56	7	52	13	71	6	43
Pinkerton	15	25	14	27	19	38	19	30	26	50	19	34
Richardson	10	32	3	102	0	72	5	55	12	61	6	69
Troost	15	16	4	16	3	58	6	77	2	69	3	63
Wheatley	17	27	13	31	13	91	1	42	7	44	14	63
Woodland	24	41	19	44	26	80	22	33	33	48	30	46
Total N	164	1006	178	1161	178	1142	154	949	190	901	170	894
Total %	14	86	13	87	13	87	14	86	17	83	16	84

Note: Enrollment data provided by the Kansas City, Missouri School District Research Office.
* Traditional Schools

Implementation

Program Activities. In addition to the annual STEPS/SWAS conference in November and a two-day conference for principals, documents provided by the Special Projects Office reported 54 activities planned for the 1990-91 year. Informational and planning meetings for principals, instructional assistants, teachers, and central office administrators were also planned throughout the year. Twenty-five inservice days designed primarily for para-professionals or teachers were offered, with attendance on a voluntary basis. Teachers responded to questions about STEPS inservice in a survey conducted in spring 1991. The results of the survey, shown in Table 2, reveal that of the 450 respondents, 21% said they took advantage of the STEPS inservices offered for attendance on a voluntary basis at every opportunity; 42% said they usually attended; 30% stated that they seldom attended; and 8% said never (item 1). Asked how often they were able to apply in their classrooms information from the STEPS inservices they had attended, 22% of the respondents said daily, 26% frequently, 35% often, 15% seldom, and 3% never (item 2). Eighty-nine percent of the teachers said they were satisfied or very satisfied with the staff development offered by STEPS, while 11% said they

Table 2
STEPS Teacher Responses Concerning Inservice
Spring 1991

Item		Response Alternatives	1990-91 N= 450
1.	How often do you take advantage of the STEPS inservices that are offered on a voluntary attendance basis and are appropriate to your teaching situation?	Every Opportunity	21%
		Usually	42%
		Seldom	30%
		Never	8%
2.	How often were you able to apply in your classroom information from the STEPS inservices you have attended	Daily	22%
		Very Frequently	26%
		Often	35%
		Seldom	15%
		Never	3%
3.	How satisfied have you been with staff development/inservice sessions offered by STEPS?	Very Satisfied	27%
		Satisfied	62%
		Dissatisfied	10%
		Very Dissatisfied	1%
4.	Overall, what rating would you give the STEPS inservice activities?	Excellent	21%
		Good	42%
		Average	23%
		Fair	10%
		Poor	4%
5.	Inservice wanted		
	a. improve discipline	Yes	57%
	b. increase effectiveness of reading instruction	Yes	50%
	c. increase knowledge of computers	Yes	46%
	d. increase effectiveness of math instruction	Yes	43%

were dissatisfied or very dissatisfied (item 3). Overall, 21% of the responding teachers characterized the STEPS inservice activities as excellent, 42% as good, 23% as average, 10% as fair, and 4% as poor (item 4). Asked what inservice sessions they wanted to see offered, 57% wanted help on improving discipline, 50% and 43% wanted inservice aimed at increasing effectiveness of reading and math instruction respectively, and 46% said they wanted inservice to increase their knowledge of computers (item 5).

In addition to the above activities, STEPS was involved in a Micro-Teaching pilot program for reading instruction in three schools. Eighteen teachers participated in the pilot which was to facilitate implementation of instructional strategies in content areas for the 1991-92 school year. The content area used for the study was social studies. The training consisted of 18 hours,

with an additional four hours of micro-teaching and six hours of observed teaching. The teachers were to act as researchers, providing feedback on how long it takes to become comfortable with the strategies, how to help the children in their classrooms become comfortable with the strategies, and what effect they see on achievement and attitude on learning. The teachers met on a weekly basis to discuss lessons and help one another. They also kept a log of their experiences with the program. The feedback from the teachers will be used in planning for teacher inservice projects for 1991-92. The achievement section of this report gives the results of the ITBS for the classrooms involved in the pilot project.

Another pilot project, Reading Partners (ReaP) involved 10 teachers, one from each of 13 STEPS schools. Each worked with a student identified as academically at-risk and that student's parents. The STEPS office gave pre and post-pilot questionnaires to the involved parents to try and assess any changes in reading behaviors and/or attitudes that might have occurred as a result of the intervention. The questionnaires revealed that during the course of the pilot program there were increases in the frequency with which both the children and parents read, the frequency of teachers informing parents how to help with a child's reading at home , the number of parent who said they had some knowledge about reading strategy and who felt comfortable with the knowledge they had, the number of books owned by the children themselves, and the number of visits to the library.

Classroom observations. In an attempt to determine program effects, attendance records from the year's activity lists, including planning meetings and inservices, were examined to identify teachers who had particularly high attendance rates and teachers who seldom or never chose to attend STEPS activities. The STEPS reading and math resource teachers helped to identify observable behaviors in both math and reading that had been taught and stressed in STEPS workshops as particularly effective classroom behaviors. Using these checklists, 16 classrooms (8 each of teachers who attended frequently or seldom/never) were visited twice each during reading and math classes. An analysis of results revealed no observable differences in frequency of desirable behaviors between high and low attending teachers. Proportions of identified behaviors in both reading and math were similar in both groups.

Instructional analysis. In 1989-90, STEPS began an attempt to internally evaluate the effects of their program on instruction and to try to identify problems in the buildings that needed to be addressed. They formed Instructional Analysis Teams to visit the schools, observe classes for recommended instructional practices, and gather data related to imple-

mentation of common effort activities. The teams then generated a report of their observations, including a section of recommendations, which was provided to the building principal, steering committee members, and other interested parties. In spring of 1990, a written request was sent by the program evaluation office to the schools which had been observed that first year, asking them how they had used the report and what, if any, actions they had taken, or planned to take, in response to the recommendations. Both mail and phone reminders failed to elicit responses from the schools. At the end of the 1990-1991 school year, principals at eight STEPS schools which had been visited in the spring and had received their reports were contacted by phone. They were interviewed about their perceptions of the value of the instructional analysis report and their response, or planned response, to any recommendations contained in their report. All eight responded that they had received and read the document, found it useful, and that they had shared it with their faculty. Asked if they had acted on any of the recommendations, all said yes but none could give any specific action completed or planned based on the recommendations. Answers about actions were vague, with responses such as sharing the document with faculty and having plans to do something with it next year. Finally, asked if they had any concrete suggestions to make to increase the usefulness of the process, six of the eight said no, one just asked for a draft before it's typed up in final form, and one wanted to go through it step by step as it related to theme implementation.

Achievement

Current overall reading and math achievement. STEPS reading-related and math ITBS achievement scores for the last four years, 1987-88 to 1990-91, and the baseline year of 1985-86 are contained in Table 3 as percentile ranks. Scores were converted from mean grade equivalents obtained from the district computer base and are based on 1985 test norms. The national norm for each subtest and grade level is the 50th percentile. Only the 18 schools participating in STEPS in 1990-91 are tracked in the table, with 15 schools represented by the 1986-1989 data, 16 schools by the 1990 data, and 18 schools by the 1991 data. This approach gives some consistency to the table of results, but the reader is warned that changes in schools in 1990 and 1991 make direct comparisons between these years impossible.

The test results are broken down by both grade level and minority/ non-minority status. An examination of the 1990-91 scores in the table shows that in STEPS schools, kindergartners, first, and second graders met or exceeded the national norm on all subtests except second grade reading. At third grade the scores exceeded the national norm in language. Overall,

Table 3

ITBS Reading, Math, Language, and Vocabulary Achievement Scores for STEPS Schools Presented as Percentile Ranks

1986-91

Grade	1985-86			1987-88			1988-89			1989-90			1990-91			District 1991
Subject	Min.	Non-Min.	Total	Min.	Non-Min.	Total	Min.	Non-Min.	Total	Min.	Non-Min.	Total	Min.	Non-Min.	Total	Total
Kindergarten																
Reading	--	--	72	80	81	80	82	87	82	83	83	83	--	--	--	--
Math	--	--	64	59	69	59	69	77	70	66	77	67	63	69	64	64
Language	--	--	51	53	64	53	55	70	56	55	65	57	59	69	61	61
Vocabulary	--	--	77	75	83	76	81	83	82	84	89	85	69	76	71	64
First																
Reading	53	49	53	44	38	43	48	53	49	56	56	56	55	56	55	53
Math	38	44	38	40	43	40	48	66	50	56	67	57	59	69	60	65
Language	58	53	57	61	61	61	70	72	70	75	73	74	74	76	74	73
Vocabulary	51	43	51	48	52	48	57	63	58	68	69	68	66	68	66	64
Second																
Reading	38	44	38	39	52	40	42	40	42	51	61	52	46	54	47	50
Math	43	43	43	44	61	46	52	60	52	59	77	61	60	70	61	64
Language	53	51	53	53	60	54	60	49	59	67	69	68	63	65	63	64
Vocabulary	37	39	37	38	44	38	49	41	49	62	62	62	59	59	59	56

Table 3 (Cont.)
ITBS Reading, Math, Language, and Vocabulary Achievement Scores for STEPS Schools Presented as Percentile Ranks
1986-91

Grade	1985-86			1987-88			1988-89			1989-90			1990-91			District 1991
Subject	Min.	Non-Min.	Total	Min.	Non-Min.	Total	Min.	Non-Min.	Total	Min.	Non-Min.	Total	Min.	Non-Min.	Total	Total
Third																
Reading	35	48	36	33	39	33	33	55	35	37	54	39	37	51	39	44
Math	42	49	43	34	45	35	32	56	34	41	56	42	39	52	41	48
Language	49	53	49	47	54	48	46	59	48	55	65	57	52	60	53	57
Vocabulary	25	39	26	32	37	33	32	61	34	40	57	42	40	56	43	45
Fourth																
Reading	30	51	30	32	39	33	31	47	34	31	46	32	31	49	34	39
Math	37	51	38	35	41	36	37	48	39	37	51	39	37	54	40	45
Language	39	56	40	47	51	48	43	52	44	44	55	45	45	59	47	49
Vocabulary	29	51	30	34	51	37	35	57	38	35	55	38	34	56	37	42
Fifth																
Reading	27	40	29	30	47	32	34	43	35	36	46	38	32	45	33	40
Math	40	52	43	31	48	34	39	46	40	38	45	39	32	41	34	41
Language	41	55	44	42	58	45	47	56	49	46	52	46	43	48	44	48
Vocabulary	28	40	30	22	45	26	32	47	34	37	44	38	28	37	29	35

Note: Scores were converted to percentile ranks from mean grade equivalents using 1985 norms. In keeping with Program Evaluation Department policy, the most recent four years data (1988-91) are presented along with data from the program's baseline year (1985-86). Only the 18 schools participating in STEPS in 1990-91 are tracked, so there are 15 schools represented in 1986, 1988, and 1989, 16 schools in 1990, and 18 schools in 1991. It is also important to note that the number of minority students is very large in proportion to non-minority students, with non-minority counts ranging from 35 to 194 and non-minority counts ranging from 35 to 194 and non-minority counts ranging from 35 194 and non-minority counts ranging from 682 to 776 across the years and grade levels.

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STEPS students scored highest in language, with no grade level falling below the 44th percentile. Reading, language, and vocabulary scores in first grade and vocabulary scores in kindergarten and second grades exceeded the district averages. However, scores remaining below national norms and district averages in most subject areas at grade levels three, four, and five suggest a continuing need for STEPS to focus on reading and math instruction, especially on skills needed at those grade levels.

Looking at minority/non-minority score patterns, both groups scored at the 59th percentile rank in second grade vocabulary. However, in all other areas, across grade levels, non-minority student scores were higher.

Multiple year program effects. There are many factors that confound efforts to determine the effect of the STEPS program on academic achievement. In an attempt to more accurately represent the effects of the STEPS program over time, and try to determine if there are cumulative effects of the program, some analyses were done on students who have remained in the same STEPS or comparison schools for the past four years. This allows a look at students who are more similar in their school experiences and hopefully compensates for the effects of school population change due to students moving and changing schools as well as population shifts resulting from a school becoming a magnet. It is also important for the reader to remember that the schools added to the STEPS program in 1990 and 1991, not having participated in STEPS three or more years, were not included.

ITBS reading, math, language, and vocabulary scores were examined using t-tests at each grade level to compare the scores of STEPS students and students drawn from the comparison schools referenced previously. Approximately equal random samples of 125 students were drawn from each group to make the comparisons. While results of one set of analyses are presented, tests were actually replicated three times to help ensure that samples truly represented the populations. In each analysis, mean grade equivalent scores from the spring 1989 ITBS testing were subtracted from those of spring 1991 to get gain scores. Grade equivalent gain scores were selected because they not only help control for beginning differences in the groups, but also because one of the major focuses of the district is to implement programs which will result in **at least** one year gains in achievement as measured by the ITBS. Presentation of results in this format allows the reader to see immediately the years and months of academic growth as measured by this instrument. The results of the analyses are in Table 4. Scores for STEPS and comparison schools were not statistically significantly different across

Table 4

Comparison of 1988-91 ITBS Mean Grade Equivalent Gain Scores of STEPS and Comparison Schools Four Year Cohort Groups 1987-1988 to 1990-91

Grade 88-91	Reading		Math		Language		Vocabulary	
	STEPS	Comparison	STEPS	Comparison	STEPS	Comparison	STEPS	Comparison
K - 3rd	2.2	2.4	2.7	2.9	3.2	3.3	2.3	2.5
1st - 4th	2.5	2.4	2.7	2.6	2.8	2.6	2.5	2.4
2nd - 5th	2.6	2.7	2.4	2.7*	2.6	2.7	2.3	2.4

Note: Only students who had attended the same STEPS or Comparison school from 1987-88 through 1990-91 and progressed to the next grade were included. Three year gain scores were calculated using mean grade equivalent differences (1991-1988). Differences between the groups were analyzed using t-tests on random samples of 125 students selected from each group. Comparison schools were chosen from the non-STEPS schools with the highest minority enrollments.

* Statistically significant at the .05 level.

subjects for the kindergarten and first grade cohorts, or for reading, language, and vocabulary in the second grade cohort. Comparison schools' gain scores were statistically significantly higher only in math on the second grade cohort, with average gains of two years four months for STEPS students and two years seven months for the comparison students. These data suggest that during the period between 1987-88 and 1990-91, instruction in STEPS schools has been as effective as that in the comparison schools when measured by ITBS performance. Given that STEPS schools were chosen on the basis of having the lowest reading achievement scores in the district, achievement gains over several years time equal to those of the comparison schools may be a sign of program success. It is of importance to note, however, that only the kindergarten cohort language score gains averaged three or more years of growth in the three year period between tests. This was true for both the STEPS and comparison schools.

One of the goals of the STEPS program has been to reduce the achievement gap between minority and non-minority student scores. Table 5 takes a closer look at minority/non-minority student achievement score differences. Students who had attended the same STEPS school for three years, from 1988-89 through 1990-91, and had progressed each year to the next grade level, were broken down into four cohort groups depending on whether they were in kindergarten, first, second, or third grade in 1988-89. Three years were used to look at the minority/non-minority pattern (rather than the four years used for STEPS and comparison school cohorts above) because going back more than three years reduced the non-minority count at some grade levels to fewer than 25 pupils at some grade levels in these predominantly minority schools. Table 5 shows the mean grade equivalent scores for reading, math, language, and

Table 5

Comparison of Minority and Non-Minority ITBS Mean Grade Equivalent Scores of STEPS Schools Three Year Cohort Groups 1988-89 to 1990-91

Grade 89-91	1989		1991		1989 M/NM	1991 M/NM	Two Years Growth	
Subject	M	NM	M	NM	difference	difference	M	NM
K - 2nd								
Reading	1.3	1.5	2.8	3.0	-.2	-.3	1.4	1.5
Math	1.3	1.5	3.1	3.6	-.2	-.5	1.8	2.0*
Language	1.1	1.7	3.4	3.6	-.6	-.2	2.3*	1.9
Vocabulary	1.6	1.7	3.2	3.4	-.1	-.2	1.6	1.7
1st - 3rd								
Reading	1.8	1.9	3.4	3.8	-.1	-.4	1.6	1.8
Math	1.9	2.1	3.5	3.9	-.3	-.3	1.7	1.7
Language	2.3	2.4	4.0	4.3	-.1	-.3	1.7	1.9
Vocabulary	2.0	2.1	3.6	4.0	-.1	-.4	1.5	1.8
2nd - 4th								
Reading	2.6	2.8	4.1	4.6	-.2	-.4	1.5	1.7
Math	3.0	3.2	4.5	4.8	-.2	-.3	1.5	1.6
Language	3.3	3.1	4.8	5.2	+ .1	-.4	1.5	2.1*
Vocabulary	2.9	3.0	4.2	4.8	-.1	-.6	1.3	1.9
3rd - 5th								
Reading	3.2	3.7	5.0	5.7	-.5	-.7	1.8	2.0*
Math	3.4	3.8	5.2	5.5	-.4	-.3	1.8	1.7
Language	3.8	4.2	5.6	6.0	-.4	-.4	1.7	1.7
Vocabulary	3.3	3.9	4.9	5.4	-.6	-.5	1.6	1.4

Note: Only students who had attended the same STEPS school from 1988-89 through 1990-91 and progressed each year to the next grade were included. Two year gain scores were calculated using mean grade equivalent differences (1991-19889).

* Made at least two full years growth.

vocabulary for each cohort's minority and non-minority students in 1989 and in 1991. It also shows the difference (the gap) between minority and non-minority scores for each of those years' testing. The gap between the groups is smaller in 1991 only in language for the kindergarten cohort (minority students are two months behind non-minority students in 1991 as opposed to six months in 1989). The third grade cohort showed the only other reductions in the gap between minority and non-minority scores, with four month differences in math and six month differences in vocabulary scores in 1989 reduced to three and five month gaps, respectively, in 1991. Table 5 also presents the two-year growth, as measured by gains in mean

grade equivalents, for the two groups. The table reveals that minority students averaged two years of growth, between spring testings in 1989 and 1991, only in the kindergarten cohort in language (2 years three months). The non-minority group averaged two years growth in that period in math in the kindergarten cohort and in reading in the third grade cohort. That group also averaged a two year one month gain in the second grade cohort in language.

The STEPS and comparison school minority and non-minority ITBS scores for these cohorts were converted to percentile ranks and are presented in graphs in the appendix as Figures 1A through 4D to give the reader a visual tool with which to view these patterns of change using percentile ranks while keeping in mind the national norm of 50th percentile rank. This also allows the reader to see that making less than one year's growth each year results in drops in the percentile ranks.

One-year reading pilot program effects. As described in the implementation section previously, a pilot program in reading instruction techniques was conducted in three schools over the course of the 1990-91 school year. Results are presented in Table 6 for the first, third, fourth, and fifth grade classrooms involved. For comparison, students were randomly sampled

Table 6
Comparison of One-Year Gain Scores of ITBS Reading, Social Studies, Language and Vocabulary Scores Presented Mean Grade Equivalent Differences for the STEPS Reading Pilot Students and a Comparison Group of Students

	Reading		Social Studies		Language		Vocabulary	
Grade / Strategy	STEPS	Comparison	STEPS	Comparison	STEPS	Comparison	STEPS	Comparison
First								
DR-TA	.5	.6	---	---	.9	1.4*	.6	.4
Third								
DR-TA	1.0*	.6	1.1	0.4	.8	.5	.7	.7
Four								
Reciprocal	.4	.7*	.8	1.1	.8	.6	.7	.8
KWEL +	.1	.7*	-.7	1.1*	.5	.7	.1	.8*
Five								
Reciprocal	.9	.9	-.1	.5*	.4	1.0*	.2	.6*
KWEL +	1.0	.8	.3	.6	1.1	1.0	.7	.6

Note: ITBS mean grade equivalent gain scores were calculatedby subtracting the mean 1990 scores from the mean 1991 score for each grade level and subject area. Students in the comparison g roups were randomly selected from the STEPS schools not involved in the pilot program.

* Statistically significant at the .05 significance level.

from classrooms at other STEPS schools not participating in the pilot projects. Only one second grade classroom participated and results are not presented as they could not be considered as representative of a grade level with so small a number of students and one teacher involved.

Four first grade classrooms at Askew participated in the pilot using the Directed Reading-Thinking Activity (DR-TA) technique. T-tests on the one year mean grade equivalent gain scores on the ITBS in reading, social studies, language, and vocabulary revealed that the two first grade groups differed to a statistically significant degree only in language, with 9 month gains in the participating rooms and one year four month gains in the comparison group. In reading and vocabulary both STEPS and comparison students averaged gains of only four to six months. Gain scores could not be compared in social studies, as they were not tested in that area in kindergarten.

The third grade classrooms at Askew also used the DR-TA method. As shown in the table, one year ITBS gains were greater for the STEPS pilot group in reading, social studies, and language. However, only the differences in reading and social studies were statistically significantly greater. It is also interesting to note that gains in the comparison group ranged from less than one month in social studies to seven months in vocabulary, while gains for the STEPS group ranged from seven months in vocabulary to one year in reading and one year one month in social studies. These results, especially in reading and social studies which should have had the most impact from the DR-TA instruction, suggest that for the third grade level at least, that method may have a positive effect on reading and content area achievement as measured by the ITBS. The sample was small, with only two classrooms of students and two teachers involved, making broad generalizations about the results and their usefulness limited. However, the positive results for this group warrant further investigation in the area.

The results of fourth and fifth grade classroom pilots using Reciprocal Teaching and KWL plus methods were not so positive. Using the Reciprocal Teaching method, the comparison school samples had gain scores greater than the STEPS pilot classrooms to a statistically significant degree in reading at the fourth grade level and in all subjects except reading at the fifth grade level. Using the KWEL+ method of instruction, the comparison groups made statistically significant gains in all fourth grade subjects except language. The especially poor gains in social studies for the STEPS classrooms (losses of seven months at fourth grade and gains of only three months at fifth grade using KWEL+ and a loss of one month at fifth grade using the reciprocal teaching method) suggest that these methods of instruction did not have

a positive impact on achievement in the content area at those grade levels at least as measured by the ITBS. A closer review of the design of the pilot and outside research on use of these techniques in content areas over various grade levels may be a first step in examining and explaining the unexpectedly poor outcome of the pilot.

Comparison of STEPS traditional and magnet schools. Over the past four years, nine of the eighteen schools participating in the STEPS program have become magnet schools with various themes. One year mean grade equivalent gain scores were analyzed to determine if there were differences between the two groups. Results of the analyses appear in Table 7. Examination of the table reveals that students in STEPS magnet schools made greater one year gains across all subjects at kindergarten and second grade levels, with all of the differences statistically significant. At all other grade levels, traditional school students averaged greater gains for most subject areas. At first and third grade levels, the traditional students average gains were greater across all subjects with the differences statistically significant across all subjects at third grade, and in language and vocabulary at first grade At the fifth grade level,

Table 7

Comparison of One-Year Gain Scores of ITBS Reading, Math, Language and Vocabulary Scores Presented Mean Grade Equivalent Differences for the Students in STEPS Magnet Schools and STEPS Traditional Schools

Grade	Reading		Math		Language		Vocabulary	
	Magnet	Traditional	Magnet	Traditional	Magnet	Traditional	Magnet	Traditional
Kindergarten	--	--	1.2*	1.0	1.4*	1.1	1.3*	1.1
First	.6	.7	.7	.9	1.2	1.5*	.1	.7*
Second	1.0*	.6	1.2*	1.0	1.1*	.8	1.2*	.7
Third	.4	.7*	.3	.5*	.4	.8*	.3	.8*
Fourth	.6	.8*	.9	.9	.6	.7*	.7	.8
Fifth	.9	1.0*	.8	.7	.9	.9	.5	.7*

Note: ITBS mean grade equivalent gain scores were calculatedby subtracting the mean 1990 scores from the mean 1991 score for each grade level and subject area.

* Statistically significant at the .05 significance level.

traditional schools students average gains were statistically significantly greater in reading and vocabulary. Magnet school average gains were greater by one month in math, with eight and seven month gains respectively, and in language both magnet and traditional schools averaged gains of nine months. Overall, kindergarten and second grade students averaged the greatest gains, with all kindergarten gains being at least one year's growth as measured by the ITBS grade equivalent scale. At second grade, at least one year's growth was achieved on the average across all subjects in the magnet schools and in math at the traditional schools. First grade students in magnet and traditional schools averaged one year two month and one year five month gains in language, respectively, while fifth grade traditional school students averaged a one year gain in reading. All other first, third, fourth, and fifth grade groups averaged less than one year achievement gains.

Perceptions

Teachers. Four-hundred and fifty teachers in the STEPS schools were surveyed in the spring of 1991. They were asked about their perceptions of various aspects of the STEPS program. Results of the survey appear in Table 8. Ninety-one percent of the teachers agreed that their building administration strongly supports STEPS and keeps the goals in front of the faculty (item 2) with 86% agreeing that the STEPS program has high visibility in their school (item 3). Eighty-eight percent and 89%, respectively, agreed they were familiar with the STEPS program's goals and objectives and that they believed their school operates in keeping with those goals and objectives. (items 4 and 5). Eighty-four percent stated that school improvement planning has resulted in concrete actions in their school and that there are written goals and standards that are clear to everyone (items 6 and 7, respectively). Ninety-two percent of responding teachers stated there is a general belief in their school that all students can achieve the instructional objectives (item 8). Over 80% of the responding teachers agreed that the STEPS program has had a positive effect on the climate in their schools and on reading and math instruction (items 9, 10, and 11 respectively). Eighty-eight percent stated that they believed STEPS had a positive impact on their school and that their participation in the program should continue (item 12). Eighty percent or more of teachers responding believed that communication among the faculty/staff and between faculty/staff and administration, students, and parents was average to excellent (items 13 to 16). Two-thirds of the teachers said that discipline in their school was average to excellent, with one-third rating it as fair or poor (item 17).

Table 8
STEPS Teacher Perception Spring 1991

Items		Responses	1990-91 N= 450
1.	In general, have you been able to get the materials and supplies necessary to teach the district's core curriculum?	Yes	88%
		No	12%
2.	The building administration here strongly supports STEPS and keeps its goals in front of us.	Strongly agree	45%
		Agree	46%
		Disagree	6%
		Strongly disagree	4%
3.	The STEPS program has a high level of visibility in this school.	Strongly agree	29%
		Agree	57%
		Disagree	12%
		Strongly disagree	3%
4.	I am familiar with the goals and objectives of the STEPS program.	Strongly agree	31%
		Agree	57%
		Disagree	8%
		Strongly disagree	4%
5.	I believe our school operation is in keeping with the goals and objectives of STEPS.	Strongly agree	34%
		Agree	55%
		Disagree	10%
		Strongly disagree	2%
6.	In this school, school improvement planning has resulted in concrete actions.	Strongly agree	28%
		Agree	56%
		Disagree	11%
		Strongly disagree	5%
7.	There are written goals and standards for my school that are clear to everyone.	Strongly agree	34%
		Agree	50%
		Disagree	12%
		Strongly disagree	4%
8.	There is a general belief in this school that all students can achieve instructional objectives.	Strongly agree	49%
		Agree	43%
		Disagree	4%
		Strongly disagree	3%
9.	The STEPS program has had a positive effect on the climate in this school.	Strongly agree	27%
		Agree	55%
		Disagree	13%
		Strongly disagree	5%

Table 8 (Continued)
STEPS Teacher Perception Spring 1991

Items		Responses	1990-91 N= 450
10.	The STEPS program has had a positive effect on reading instruction in this school.	Strongly agree	29%
		Agree	57%
		Disagree	11%
		Strongly disagree	3%
11.	The STEPS program has had a positive effect on math instruction in this school.	Strongly agree	23%
		Agree	59%
		Disagree	15%
		Strongly disagree	4%
12.	The STEPS program has a positive impact on our school and our participation should continue.	Strongly agree	37%
		Agree	51%
		Disagree	8%
		Strongly disagree	4%
13.	Communication among faculty/staff is	Excellent	14%
		Good	36%
		Average	31%
		Fair	13%
		Poor	7%
14.	Communication between faculty/staff and administration is	Excellent	19%
		Good	36%
		Average	26%
		Fair	12%
		Poor	7%
15.	Communication between faculty/staff and students is	Excellent	18%
		Good	46%
		Average	28%
		Fair	6%
		Poor	2%
16.	Communication between faculty/staff and parents is	Excellent	9%
		Good	35%
		Average	37%
		Fair	15%
		Poor	4%
17.	Discipline here is	Excellent	6%
		Good	29%
		Average	33%
		Fair	19%
		Poor	14%

Table 8 (Continued)
STEPS Teacher Perception Spring 1991

Items		Responses	1990-91 N= 450
18.	Overall, what rating would you give the STEPS program?	Excellent	30%
		Good	38%
		Average	21%
		Fair	8%
		Poor	3%
19.	How committed are you to the STEPS program and its goals?	Extremely	26%
		Very	43%
		Some	28%
		Not at all	3%

Overall, 68% of teachers said they would rate the STEPS program good or excellent, 21% said average, and 11% said fair or poor (item 18). Asked about their own personal commitment to the STEPS program and its goals, 70% said they were extremely or very committed, 28% said some, and 3% said not at all.

To get a better idea of the long-term impact of the STEPS program in the schools, teachers who had been in their STEPS school at least three years were asked to respond to certain questions about changes in their schools. The results of this part of the survey are found in Table 9. Most of the questions asked refer directly to issues the literature says are related to effective schools, on which the STEPS program is based. Asked about appropriate curriculum alignment, (i.e. if what is taught is what is tested), 76% of 253 responding teachers said it was better or much better, 21% said there was no change, and 3% stated it was worse or much worse (item 1). Seventy-five percent said their knowledge about, and use of, effective instructional techniques was better or much better, 20% said there was no change, and 5% said it was worse or much worse (item 2). Sixty-seven percent stated that they believed the leadership of the principal was better or much better, 25% said there was no change, and 4% said it was worse (item 3). Asked about high expectations in their school for all students, 76% said conditions were better or much better, 20% said there was no change, and 4% said conditions were worse (item 4). Seventy-four percent of teachers believed that the school climate was better or much better, 28% believed there was no change, and 8% believed it was worse or much worse (item 5). Only 33% of the responding teachers believed that parent

Table 9
Teacher Perception Of Change in STEPS Schools Spring 1991

Items		Responses	1990-91 N= 253
1.	Appropriate curriculum alignment - (what is taught is what is tested)	Much Better	23%
		Better	53%
		No Change	21%
		Worse	2%
		Much Worse	1%
2.	Knowledge about and use of effective instructional techniques	Much Better	21%
		Better	54%
		No Change	20%
		Worse	4%
		Much Worse	1%
3.	Leadership of the Principal	Much Better	30%
		Better	37%
		No Change	25%
		Worse	4%
		Much Worse	0%
4.	High expectations for all students	Much Better	31%
		Better	45%
		No Change	20%
		Worse	4%
		Much Worse	0%
5.	School climate	Much Better	21%
		Better	43%
		No Change	28%
		Worse	6%
		Much Worse	2%
6.	Parent Involvement	Much Better	9%
		Better	24%
		No Change	47%
		Worse	14%
		Much Worse	7%

Note: Only teachers who have been in a STEPS school three years or longer were asked to rate change in these areas over time.

involvement was better or much better, with 47% stating there was no change, and 21% believing it was worse or much worse (item 6).

Parents. Three-hundred and seventy-five parents were randomly selected from the 18 STEPS schools to be surveyed by telephone in the spring of 1991. Results of that survey are found in Table 10. Asked to identify major factors which had affected their decision to enroll

Table 10

STEPS Parent Perceptions Spring 1991

Items		Responses	1990-91 N= 375
1.	Which of the following situations were major factors in your decision to send your child to ____ school?		
	a: It is the school closest to your home.	Yes	45%
	b: It has a magnet theme we applied for.	Yes	30%
	c: We were assigned by the district.	Yes	47%
	d: Could not get into a magnet applied for	Yes	6%
	e: Other reasons	Yes	18%
2.	Are you satisfied with the progress your child has made in basic skills such as reading, writing, and math?	Yes No	89% 11%
3.	Overall, are you satisfied with your child's teachers?	Yes No	93% 7%
4.	Overall, do you believe that the principal has been responsive to your concerns?	Yes No	94% 6%
5.	Do you believe your participation as a parent is welcome at Open House, SAC meetings, as a volunteer, etc.?	Yes No	98% 2%
6.	Have communications from school like newsletters, notes, or phone calls been understandable and helpful?	Yes No	97% 4%
7.	Is the school kept clean, in good repair, and attractively decorated?	Yes No	97% 4%
8.	Do you believe the school is a safe place for your child?	Yes No	96% 4%
9.	Do you believe students are treated fairly and consistently.	Yes No	91% 9%
10.	Do you believe the school has high expectations for your child?	Yes No	92% 8%
11.	Has the curriculum been made available and explained clearly to parents?	Yes No	92% 8%
12.	Are you kept up to date on what your child is studying?	Yes No	92% 8%
13.	Are you kept informed on what you might do at home to help your child achieve?	Yes No	94% 6%
14.	Are you regularly informed of your child's progress in school?	Yes No	94% 6%
15.	Are you often encouraged to work with your child on school assignments?	Yes No	92% 8%

Table 10 (Cont.)

STEPS Parent Perceptions Spring 1991

Items		Responses	1990-91 N= 375
16.	Is there a fair and consistent discipline plan in the school that you support?	Yes No	89% 11%
17.	Are ways parents can get involved in their child's education made clear?	Yes No	94% 6%
18.	Are you familiar with the STEPS program that operates in your child's school?	Yes No	46% 54%
19.	Have you participated in any STEPS initiated activities this year?	Yes No	16% 84%
20.	Do you attend School Advisory Council (SAC) meetings?	Often Occasionally Never	4% 29% 67%
21.	Did you attend the last parent/teacher conference?.	Yes No	69% 31%
22.	Have you met your child's teachers for this year?	Yes No	96% 4%
23.	Have you been contacted this year by teachers about your child's progress?	Often Occassionally Never	37% 50% 14%
24.	Have you spoken to the school principal this year?	Yes No	63% 37%
25.	Have you worked on homework assignments with your child ...?	Everyday 2-3 days/week Occasionally Never	35% 32% 29% 4%
26.	Have you been asked this year to volunteer in some way at your child's school?	Often Occasionally Never	15% 40% 45%
27.	Are you proud of the school your child attends?	Yes No	93% 7%
28.	Overall, are you satisfied with the school?	Yes No	94% 7%
29.	Would you recommend the school to other parents?	Yes No	92% 8%

their child in a particular school, 45% of parents said it was the school closest to their home, 30% said it had a magnet theme they had applied for, 47% stated that they were assigned by the district, and 18% said there were "other" reasons (most often explained as a sibling already

attending the school). Only six percent said they could not get into a magnet they had applied for (item 1a-1e). Eighty-nine percent of parents said they were satisfied with the progress their child was making in basic skills (item 2). Ninety-three percent said they were satisfied with their child's teachers and 94% believed the principal was responsive to their concerns (items 3 and 4, respectively). Ninety-eight percent of parents felt that their participation at the school was welcome (item 5), with 97% stating that communications that they received from the school were understandable and helpful (item 6). Ninety-seven percent of parents believed that the school was kept clean, in good repair, and attractively decorated (item 7) and 96% believed that the school was a safe place for their child (item 8). Ninety-one percent said they believe the students are treated consistently and fairly and 92% said they believe the school has high expectations for their child (items 9 and 10, respectively).

Parents were asked a series of questions about their interactions with the school. Over 90% said that the curriculum had been made available and explained clearly, that they were kept up to date on what their child was studying, that they were informed about what they might do at home to help their child achieve, that they were regularly informed of their child's progress, and that they were often encouraged to work with their child on assignments (items 11 to 15, respectively). Eighty-nine percent of parents said there is a fair and consistent discipline plan in the school that they support (item 16) and that ways that parents can get involved in their child's education are made clear (item 17).

Asked if they were familiar with the STEPS program, 46% said yes with 16% stating that they had participated in a STEPS initiated activity this year (items 18 and 19, respectively).

Only four percent of parents said they attend School Advisory Council meetings often, with 29% saying they attend occasionally, and a full two-thirds stating that they never attend (item 20). Sixty-nine percent of parents said they attended the last parent-teacher conference (item 21), however, 96% of the respondents said they had met their child's teachers for this year (item 22). Asked how frequently they had been contacted by teachers about their child's progress this year, 37% said frequently, 50% said occasionally, and 14% said they had never been contacted (item 23). Sixty-three percent said they had spoken to the school principal this year (item 24). When asked how often they worked on homework assignments with their child, 35% said everyday, 32% said two-three days a week, 29% said occasionally, and 4% said never (item 25). Fifteen percent of parents said they had often been asked to volunteer in some way at the school, 40% said they were asked occasionally, and 45% said they had never been asked

(item 26). A large majority of parents said they were proud of the school their child attends and that, overall, they were satisfied (items 27 and 28, respectively). Ninety-two percent said they would recommend the school to other parents (item 29).

Conclusions

Enrollment across the 18 STEPS schools ranged from 83% minority at fourth grade to 87% minority at both first and second grade. The nine traditional schools actually ranged from 90%-97% minority while the nine magnet schools ranged from 64%-83% minority.

The STEPS program presented numerous inservice opportunities on a voluntary attendance basis throughout the year for principals, instructional assistants, resource teachers, classroom teachers, and para-professionals. Classroom observations found no distinguishable pattern of differences in behaviors for teachers who were frequent attenders of the voluntary inservice programs and those who seldom or never elected to attend. In addition to the voluntary inservice opportunities, a pilot program designed to investigate the effectiveness of different methods of reading instruction in the content area operated in three STEPS schools. The 18 teachers involved received instruction, met for support, and provided feedback about their experiences throughout much of the school year. ITBS scores suggest that one of the methods, Directed Reading-Thinking Activity (DR-TA), may have had a positive impact on achievement at the third grade level. Results of this study will be used in planning for future interventions. A small pilot involving 10 teachers each working with one at-risk student and his/her parents appeared to be successful in increasing parent involvement with student learning and in increasing the amount of time children spent reading at home.

In 1990-91, STEPS kindergartners, first, and second graders met or exceeded the national norm on all subtests of the ITBS except second grade reading. At third grade, the scores exceeded the national norm in language. Overall, STEPS students scored highest in language, with no grade level falling below the 44th percentile. Reading, language, and vocabulary scores in first grade and vocabulary scores in kindergarten and second grades exceeded the district averages. However, scores remained below national norms and district averages in most subject areas at grade levels three, four, and five, suggesting a continuing need for focus on reading and math instruction, especially on skills needed at those grade levels. Gain scores for STEPS and comparison schools did not differ to a statistically significant degree in any subject for the kindergarten and first grade cohorts, or for reading, language, and vocabulary in the

second grade cohort. Comparison schools gain scores were statistically significantly higher only in math on the second grade cohort, with average gains of two years four months for STEPS students and two years seven months for the comparison students. These data suggest that during the period between 1987-88 and 1990-91, instruction in STEPS schools has been as effective as that in the comparison schools when measured by ITBS performance. Given that STEPS schools were chosen on the basis of having the lowest reading achievement scores in the district, achievement gains over several years time equal to those of the comparison schools may be a sign of program success. It is of importance to note that only the kindergarten cohort language score gains averaged three or more years of growth in the three year period between tests. This was true for both the STEPS and comparison schools. To catch up with the national average, scores must average greater than one year gains.

One of the goals of the STEPS program has been to reduce the achievement gap between minority and non-minority student scores. Looking at minority/non-minority score patterns in 1991, with the exception of second grade vocabulary, across all subjects and grade levels, non-minority student scores were higher than those of minority students. Test score patterns of minority and non-minority students who attended the same STEPS school for three years, from 1988-89 through 1990-91, and who had progressed each year to the next grade level were examined. The gap between the groups is smaller in 1991 only in language for the kindergarten cohort (minority students are two months behind non-minority students in 1991 as opposed to six months in 1989). The third grade cohort showed the only other reductions in the gap between minority and non-minority scores, with four month differences in math and six month differences vocabulary scores in 1989 reduced to three and five month gaps, respectively, in 1991. This analysis also revealed that minority students averaged two years of growth between spring testings in 1989 and 1991 only in the kindergarten cohort in language (two years three months). The non-minority group averaged two years growth in that period in math in the kindergarten cohort and in reading in the third grade cohort. That group also averaged a two year one month gain in the second grade cohort in language.

A large majority of teachers responding to a survey in spring 1991 agreed that the STEPS program has had a positive effect on the climate in their schools and on reading and math instruction. They believed that, overall, STEPS had a positive impact on their school and that their participation in the program should continue. To get a better idea of the long-term impact of the STEPS program in the schools, teachers who had been in their STEPS school at

least three years were asked to respond to certain questions about changes in their schools, with most of the questions asked referring directly to issues the literature says are related to effective schools, on which the STEPS program is based. Approximately three-fourths said their knowledge about and use of effective instructional techniques was better or much better, that expectations were higher, and that the school climate was better or much better. Two-thirds stated that they believed the leadership of the principal was better or much better. However, only 33% of the responding teachers believed that parent involvement was better or much better, with 47% stating there was no change.

The majority of responses of a random sample of parents surveyed from each school by telephone were positive. A large majority of parents said they were proud of the school their child attends and that, overall, they were satisfied. Ninety-two percent said they would recommend the school to other parents.

The status of affairs as they relate to recommendations made in the previously published Longitudinal Evaluation of the STEPS Program (Nelson, 1988) is as follows:

Recommendation 1: <u>The role of magnet and traditional schools in the program should be clarified.</u> In 1988, when this recommendation was made, schools which were about to become magnets were asked if they wished to remain in the program. When they expressed a desire to do so they were allowed to continue. Later, in 1989-90, the Faxon Montessori magnet dropped from the program. Discussions have been held on several occasions on the merits of including or excluding schools from the program based on their magnet school status. At this point in time, no schools have been dropped solely based on that criteria. With the exception of Faxon, two schools left the STEPS program, both because they closed altogether.

Recommendation 2: <u>Schools with relatively low rates of attendance at program activities should attempt to improve their levels of participation.</u> Principals, instructional assistants, and teachers have all been urged by STEPS staff to make use of the inservice opportunities provided. Attendance in nearly all STEPS activities has remained on a voluntary basis.

Recommendation 3: <u>The program should continue to operate based on a yearly implementation plan.</u> Each year a plan has been written and published by the Office of Special Projects under the direction of coordinator Michael Charles.

Recommendation 4: <u>Principals and instructional assistants should continue efforts to aggressively promote the STEPS program in their schools.</u> STEPS program staff report that they continued over the past two years to urge principals and instructional assistants in the buildings to promote the STEPS program. On the spring 1991 teacher questionnaire, 91% of teachers said that their building administration strongly supported STEPS and kept its goals in front of the faculty. Eighty-six percent of the teachers agreed that STEPS has a high level of visibility in their school.

Recommendation 5: It is important for the STEPS program that the Special Projects Office be able to monitor implementation in, and provide site-based assistance to, program schools. The Office of Special Projects has made a concerted effort to monitor implementation, in and provide site-based assistance to, program schools. With a small staff of one coordinator, two resource teachers, and a secretary, the STEPS office has attempted the monumental task of needs assessment, planning, development, and delivery of appropriate inservice for 18 schools with various levels of personnel, from administrator to para-professional. The task was made even more difficult by the voluntary nature of attendance, which made planning an integrated series of offerings, building on each other, an impossible job. In spite of these limitations, STEPS provided an impressive amount of on-site assistance and inservice opportunities and kept detailed attendance records for each activity and category of employee. They also developed a plan to evaluate school activities and report back to the building administration on their findings, including appropriate recommendations for improvement. Called "instructional analysis" the plan has been in operation for two years and all schools have been visited at least once.

Based on the findings outlined in this report, the following recommendations are proposed:

1. It is important to reassess and redefine the focus and purpose of the STEPS program to make it a viable organization within the new structure of the school district. This must be done in cooperation with other relevant district offices and administrators. With the multitude of changes in the district over the years since STEPS was first implemented, including the new state-mandated department of staff development, the Effective Schools office, the large number of schools transforming into magnets, and the administrative change to a new organizational structure, it is imperative to reassess the availability, use, and coordination of resources and to reassess the needs of the district schools to determine the most effective way to focus the energies and resources of the Special Projects Office.
2. As part of the reassessment and redefinition of the STEPS program recommended above, clear guidelines for beginning and ending participation in the STEPS program should be established. Also, program goals and objectives should be stated as clearly measurable outcomes with clear accountability for each step in the process. In the past, there have been no guidelines for success or failure for schools which entered the program, nor were conditions established for leaving the program. In addition, attendance in nearly all STEPS activities has remained on a voluntary basis and successful implementation of the program has been hindered by the varying degrees of participation, which made planning an integrated series of offerings, building on each other, an impossible job. There were no clear successes or failures. Program effects have been almost impossible to determine with any accuracy because of the varying conditions surrounding each participant school.
3. Sufficient and realistic resources must be assigned to the project to successfully implement the program as designed and approved by the district administration. The STEPS program had a broad scope and the small staff made a valiant effort to fulfill what it saw as its mission in the past few years. However, the size of the task was always beyond the availability of the resources. The Special Projects Office, when planning for the future goals and objectives of STEPS, must work closely with the district administration to ascertain available resources and create a plan which is scaled to be feasible within the limits of those personnel and financial resources. This type of

planning, tied to clear lines of accountability, will hopefully have the effect of encouraging a limited number of activities done effectively with clear and measurable outcomes.

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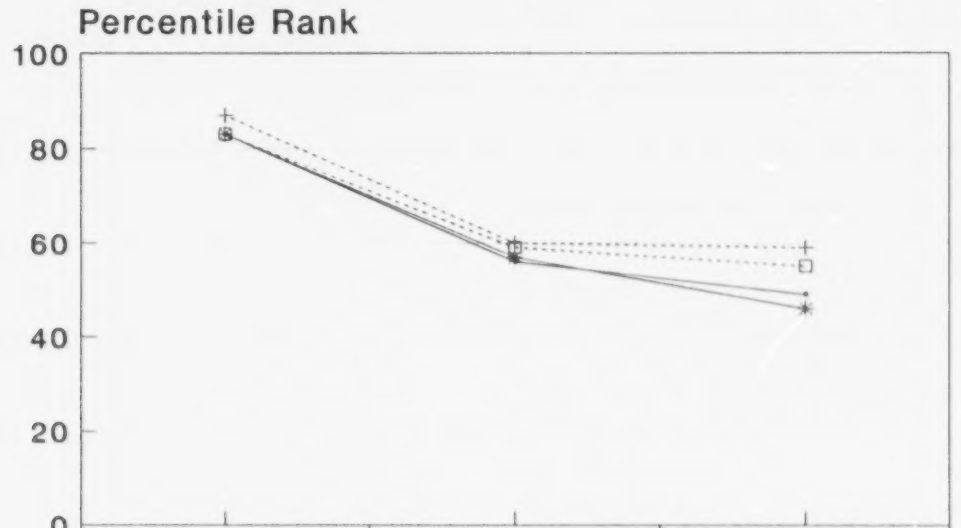
Appendix

Figure 1A

ITBS Reading Scores for Kindergarten STEPS & Comparison School Cohorts

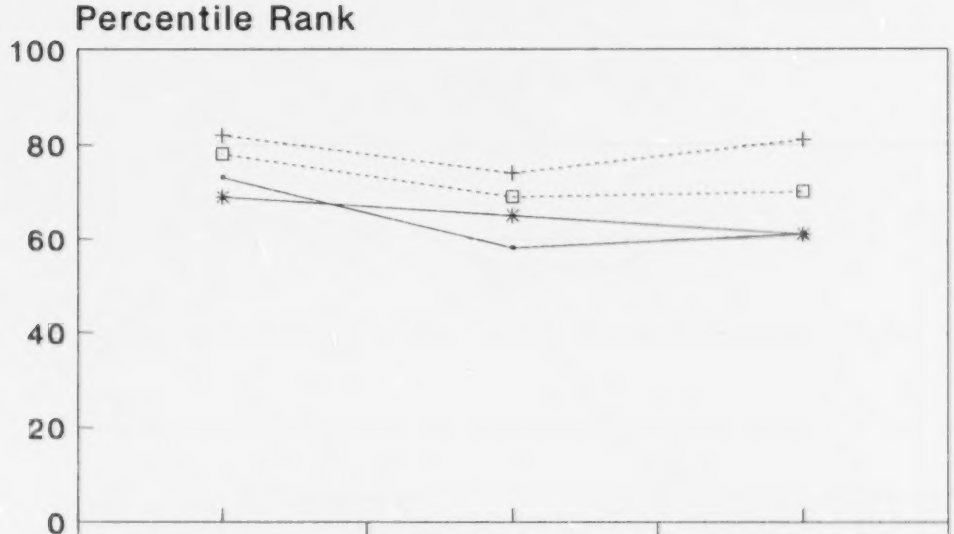


	Kindergarten 1989	1st Grade 1990	2nd Grade 1991
STEPS Minority	83	56	49
STEPS Non-Min.	87	60	59
Comparison Minority	83	57	46
Comparison Non-Min.	83	59	55

Achievement Patterns Across Time

Figure 1B

ITBS Math Scores for Kindergarten STEPS & Comparison School Cohorts

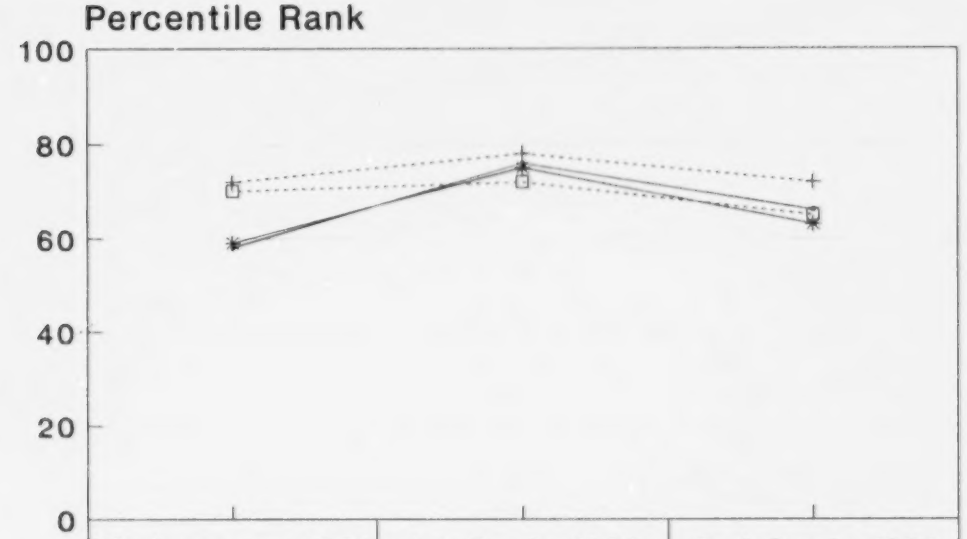


	Kindergarten 1989	1st Grade 1990	2nd Grade 1991
STEPS Minority	73	58	61
STEPS Non-Min.	82	74	81
Comparison Minority	69	65	61
Comparison Non-Min.	78	69	70

Achievement Patterns Across Time

Figure 1C

ITBS Language Scores for Kindergarten STEPS & Comparison School Cohorts

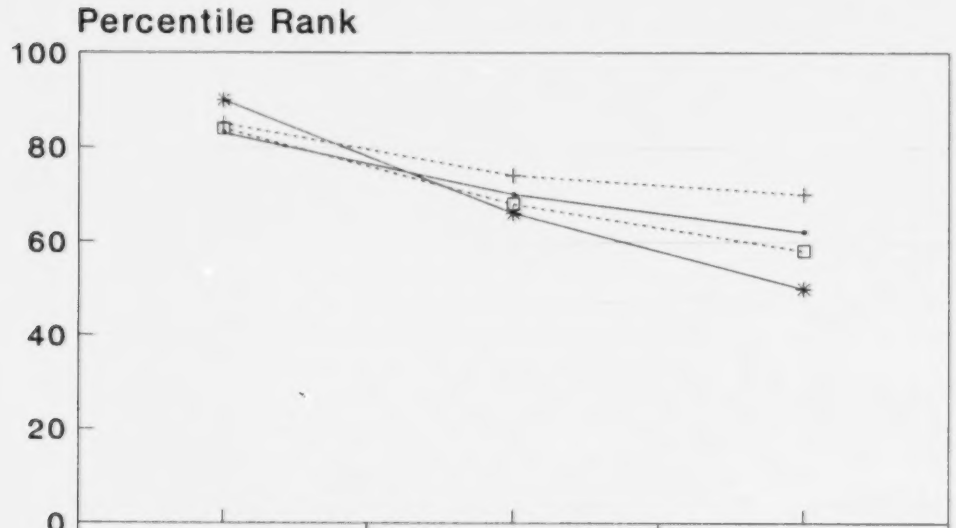


	Kindergarten 1989	1st Grade 1990	2nd Grade 1991
STEPS Minority	58	76	66
STEPS Non-Min.	72	78	72
Comparison Minority	59	75	63
Comparison Non-Min.	70	72	65

Achievement Patterns Across Time

Figure 1D

ITBS Vocabulary Scores for Kindergarten STEPS & Comparison School Cohorts

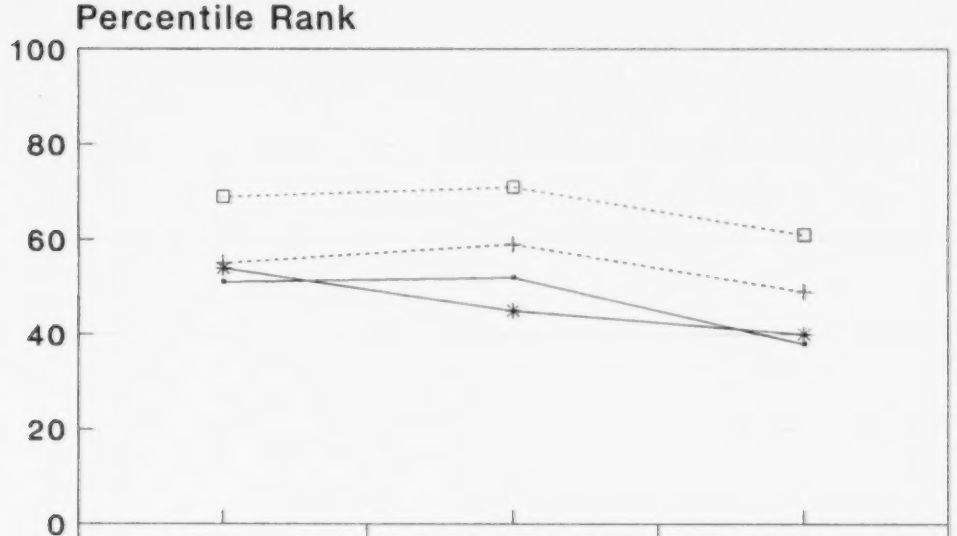


	Kindergarten 1989	1st Grade 1990	2nd Grade 1991
STEPS Minority	83	70	62
STEPS Non-Min.	85	74	70
Comparison Minority	90	66	50
Comparison Non-Min.	84	68	58

Achievement Patterns Across Time

Figure 2A

ITBS Reading Scores for First Grade STEPS & Comparison School Cohorts

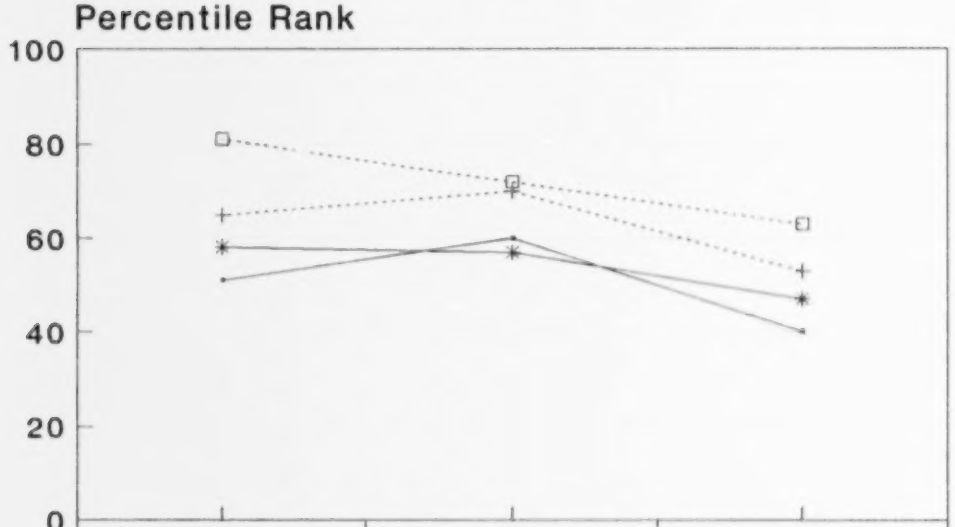


	1st Grade 1989	2nd Grade 1990	3rd Grade 1991
STEPS Minority	51	52	38
STEPS Non-Min.	55	59	49
Comparison Minority	54	45	40
Comparison Non-Min.	69	71	61

Achievement Patterns Across Time

Figure 2B

ITBS Math Scores for First Grade
STEPS & Comparison School Cohorts

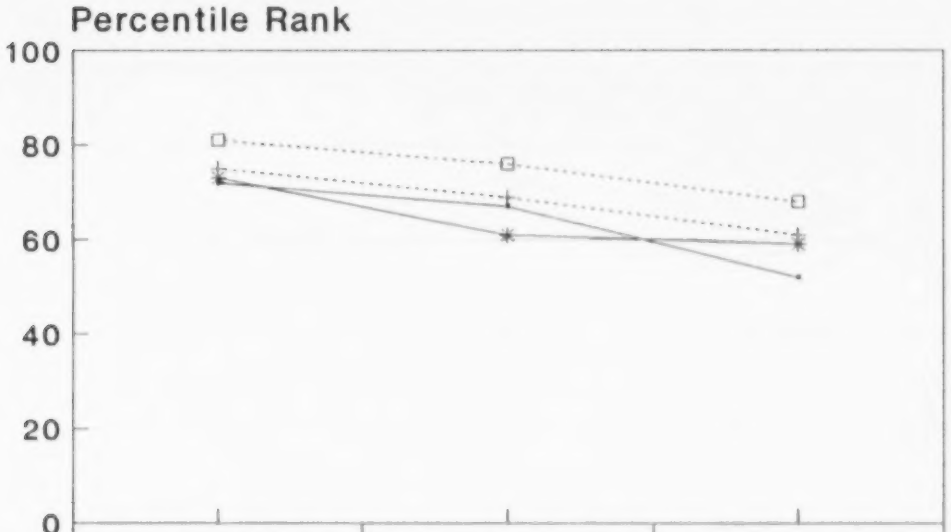


	1st Grade 1989	2nd Grade 1990	3rd Grade 1991
STEPS Minority	51	60	40
STEPS Non-Min.	65	70	53
Comparison Minority	58	57	47
Comparison Non-Min.	81	72	63

Achievement Patterns Across Time

Figure 2C

ITBS Language Scores for First Grade STEPS & Comparison School Cohorts

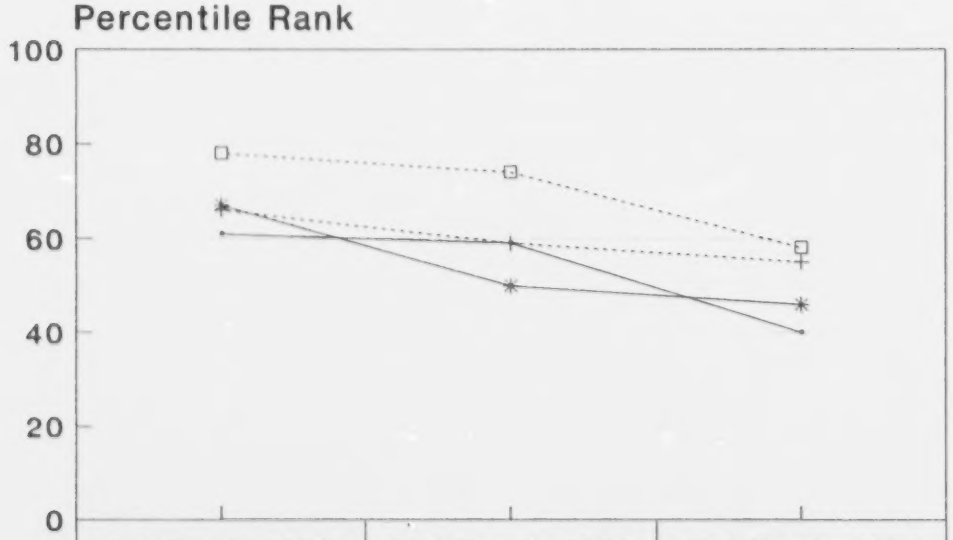


	1st Grade 1989	2nd Grade 1990	3rd Grade 1991
STEPS Minority	72	67	52
STEPS Non-Min.	75	69	61
Comparison Minority	73	61	59
Comparison Non-Min.	81	76	68

Achievement Patterns Across Time

Figure 2D

ITBS Vocabulary Scores for First Grade STEPS & Comparison School Cohorts

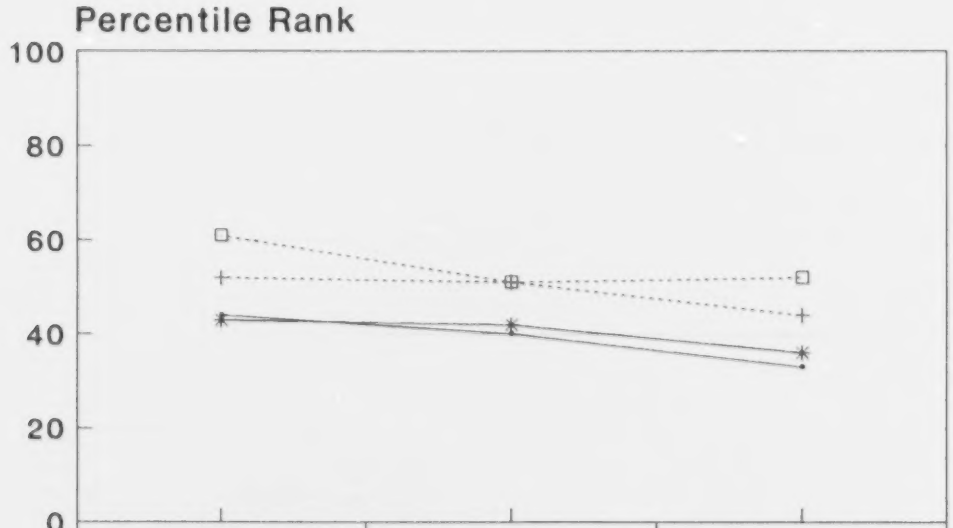


	1st Grade 1989	2nd Grade 1990	3rd Grade 1991
STEPS Minority	61	59	40
STEPS Non-Min.	66	59	55
Comparison Minority	67	50	46
Comparison Non-Min.	78	74	58

Achievement Patterns Across Time

Figure 3A

ITBS Reading Scores for Second Grade STEPS & Comparison School Cohorts

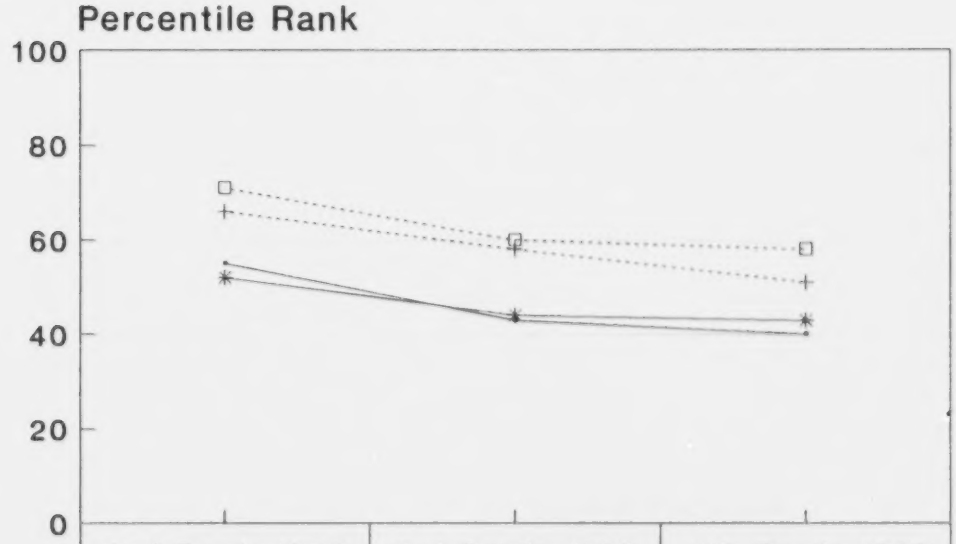


	2nd Grade 1989	3rd Grade 1990	4th Grade 1991
STEPS Minority	44	40	33
STEPS Non-Min.	52	51	44
Comparison Minority	43	42	36
Comparison Non-Min.	61	51	52

Achievement Patterns Across Time

Figure 3B

ITBS Math Scores for Second Grade STEPS & Comparison School Cohorts

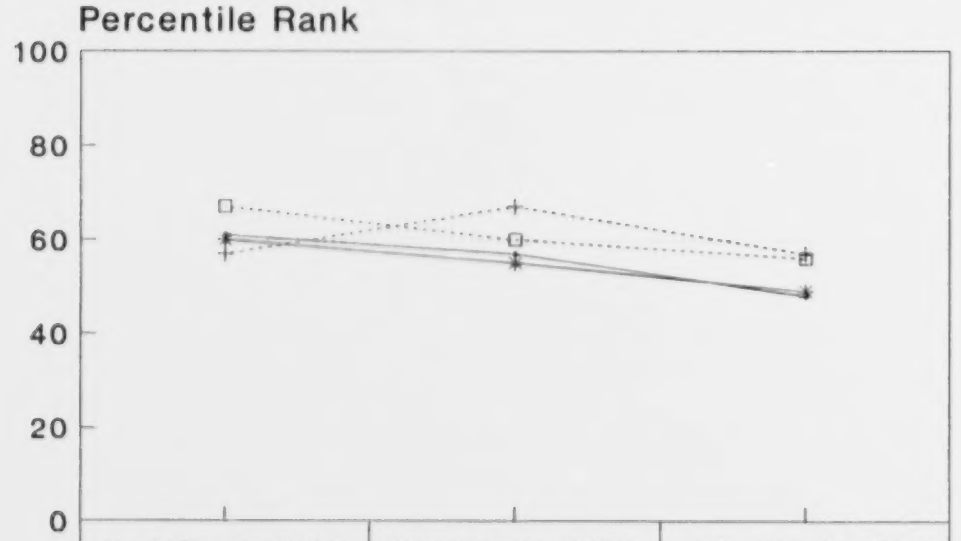


	2nd Grade 1989	3rd Grade 1990	4th Grade 1991
STEPS Minority	55	43	40
STEPS Non-Min.	66	58	51
Comparison Minority	52	44	43
Comparison Non-Min.	71	60	58

Achievement Patterns Across Time

Figure 3C

ITBS Language Scores for Second Grade STEPS & Comparison School Cohorts

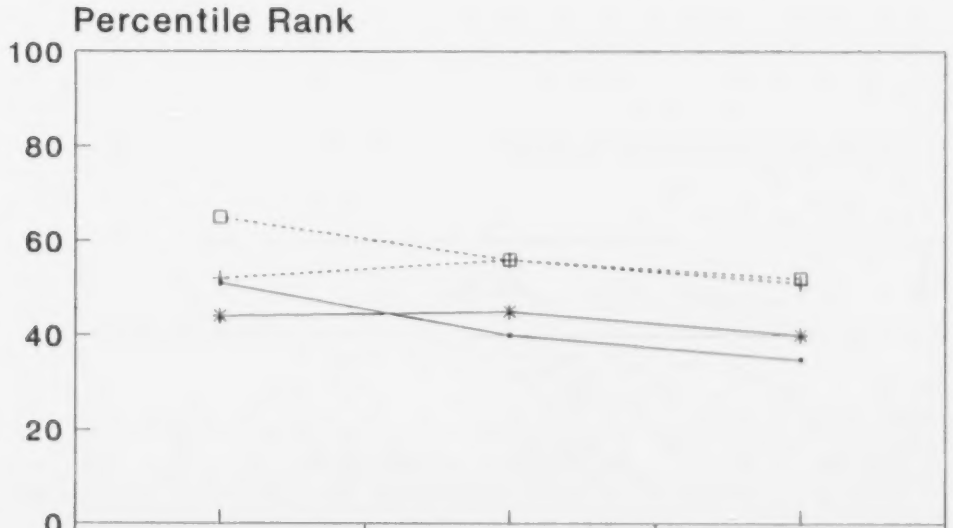


	2nd Grade 1989	3rd Grade 1990	4th Grade 1991
STEPS Minority	61	57	48
STEPS Non-Min.	57	67	57
Comparison Minority	60	55	49
Comparison Non-Min.	67	60	56

Achievement Patterns Across Time

Figure 3D

ITBS Vocabulary Scores for Second Grade STEPS & Comparison School Cohorts

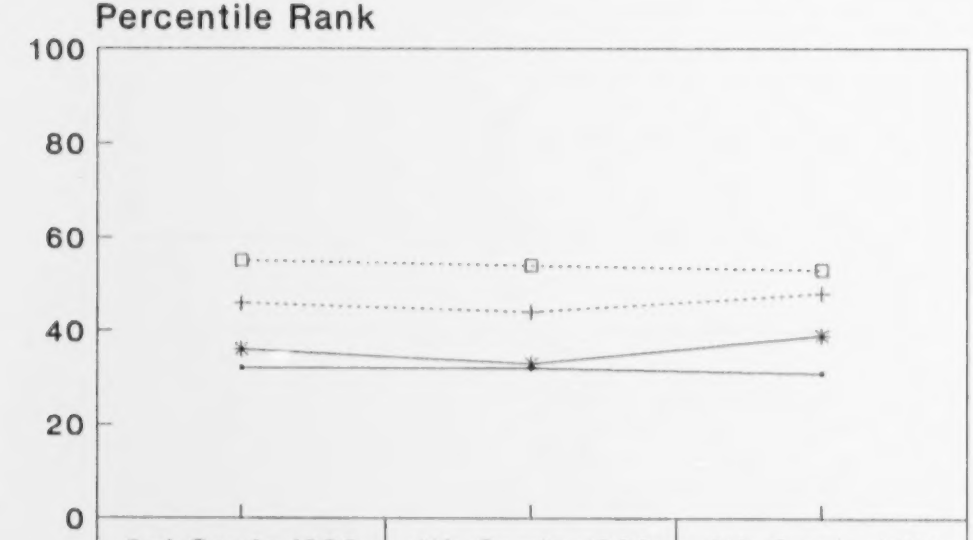


	2nd Grade 1989	3rd Grade 1990	4th Grade 1991
STEPS Minority	51	40	35
STEPS Non-Min.	52	56	51
Comparison Minority	44	45	40
Comparison Non-Min.	65	56	52

Achievement Patterns Across Time

Figure 4A

ITBS Reading Scores for Third Grade STEPS & Comparison School Cohorts

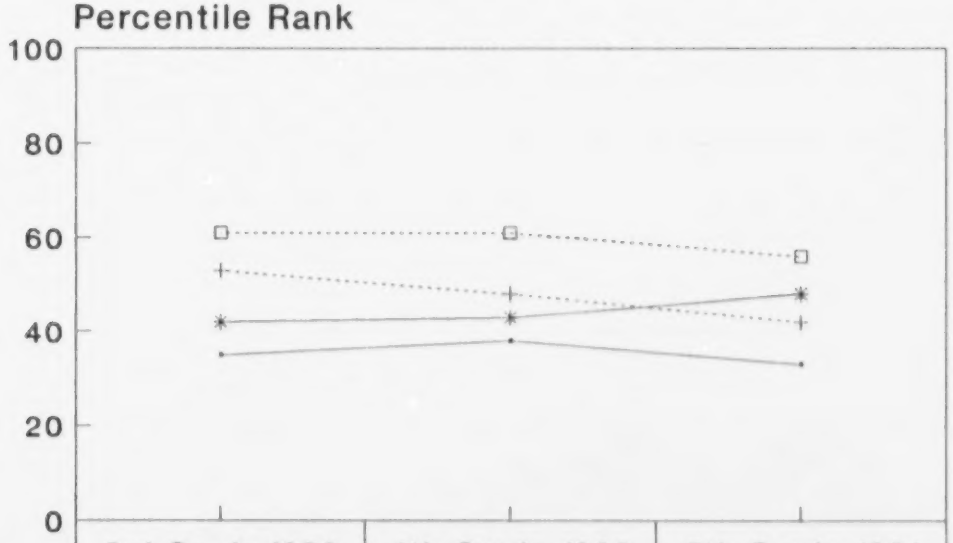


	3rd Grade 1989	4th Grade 1990	5th Grade 1991
STEPS Minority	32	32	31
STEPS Non-Min.	46	44	48
Comparison Minority	36	33	39
Comparison Non-Min.	55	54	53

Achievement Patterns Across Time

Figure 4B

ITBS Math Scores for Third Grade
STEPS & Comparison School Cohorts

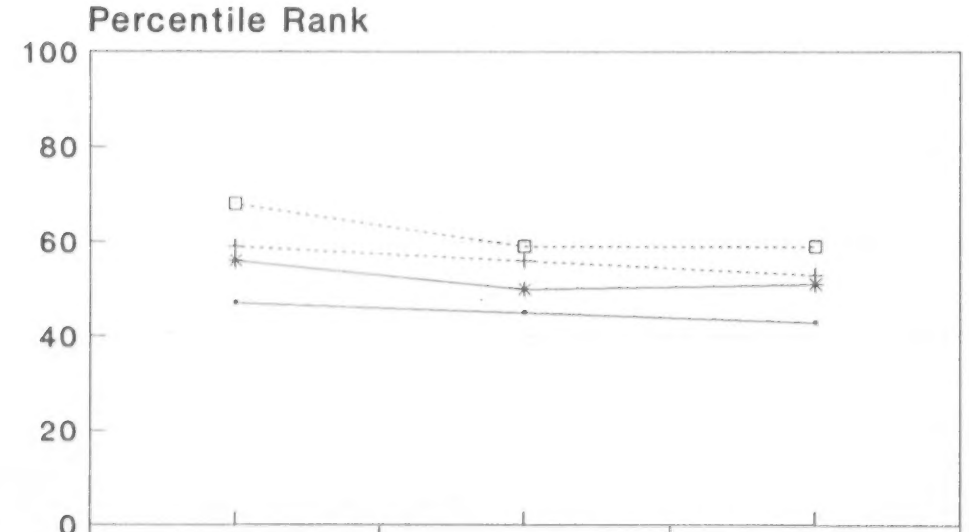


	3rd Grade 1989	4th Grade 1990	5th Grade 1991
STEPS Minority	35	38	33
STEPS Non-Min.	53	48	42
Comparison Minority	42	43	48
Comparison Non-Min.	61	61	56

Achievement Patterns Across Time

Figure 4C

ITBS Language Scores for Third Grade STEPS & Comparison School Cohorts

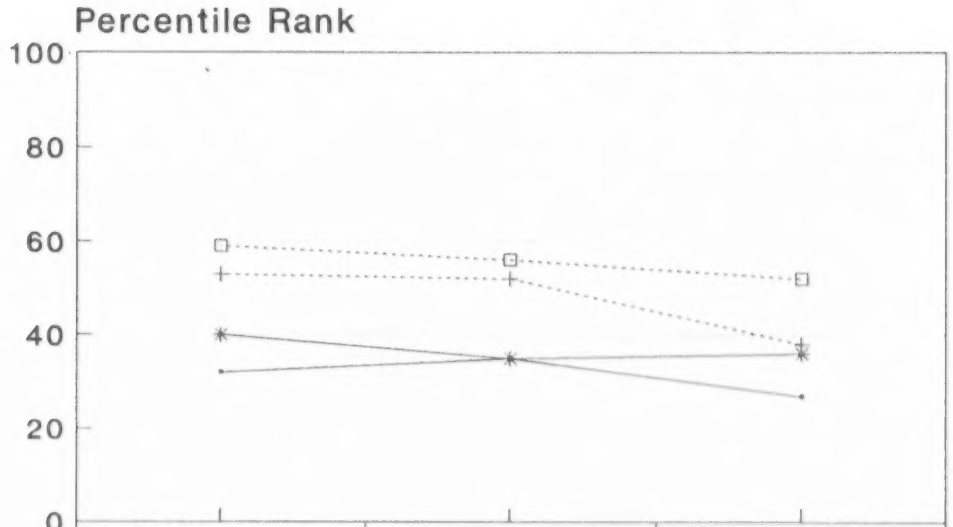


	3rd Grade 1989	4th Grade 1990	5th Grade 1991
STEPS Minority	47	45	43
STEPS Non-Min.	59	56	53
Comparison Minority	56	50	51
Comparison Non-Min.	68	59	59

Achievement Patterns Across Time

Figure 4D

ITBS Vocabulary Scores for Third Grade STEPS & Comparison School Cohorts



	3rd Grade 1989	4th Grade 1990	5th Grade 1991
STEPS Minority	32	35	27
STEPS Non-Min.	53	52	38
Comparison Minority	40	35	36
Comparison Non-Min.	59	56	52

Achievement Patterns Across Time